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January 20, 2004

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By Hand Delivery

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423-0001

Re: STB Docket No. 42072, Carolina Power & Light Company v. Norfolk Southern Railway Company

Dear Secretary Williams:

Earlier today, we filed, on behalf of Defendant Norfolk Southern Railway Company, a Petition for Reconsideration of the Board's Decision (served December 23, 2003) in the above-referenced matter. Board staff has advised us that the Board requires payment of a fee for such Petitions, because it considers a Reconsideration Petition to be an "Appeal to a Surface Transportation Board decision," within the meaning of Item No. 61 of "Regulations Governing Fees for Services Performed in Connection with Licensing and Related Services," STB Ex Parte No. 542 (Sub-No. 10) (Served Aug. 25, 2003). Accordingly, we hereby submit a check payable to the Board in the amount of $150, to cover the fee for the above-referenced Reconsideration Petition.

Please acknowledge receipt of this submission for filing by date-stamping the enclosed duplicate paper copy and returning it to our messenger. If you have any questions concerning this filing, please contact the undersigned. Thank you for your attention to this matter.

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Sincerely,

Paul A. Hemmersbaugh

cc: Counsel for Complainant (w/encls.)

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January 20, 2004

By Hand Delivery

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423-0001

Re: STB Docket No. 42072, Carolina Power & Light Company v. Norfolk Southern Railway Company

Dear Secretary Williams:

Enclosed for filing on behalf of Norfolk Southern Railway Company ("NS") in the above-referenced proceeding are a signed original and ten (10) copies of Defendant Norfolk Southern Railway Company's Petition for Reconsideration ("Petition"). Also enclosed are ten (10) CDs containing electronic workpapers, and three (3) floppy disks containing an electronic version of the Petition. Each floppy disk also contains three exhibits. Exhibits 1 and 2 are in Adobe PDF format, and Exhibit 3 is in Microsoft Excel format.

Please acknowledge receipt of this submission for filing by date-stamping the enclosed duplicate paper copy and returning it to our messenger.

If you have any questions concerning this filing, please contact the undersigned. Thank you for your attention to this matter.

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Sincerely,

G. Paul Moates
Terence M. Hynes
Paul A. Hemmersbaugh

Enclosures
cc: Counsel for Complainant (w/encls.)

BEFORE THE
SURFACE TRANSPORTATION BOARD

CAROLINA POWER & LIGHT COMPANY, *Complainant,* v. NORFOLK SOUTHERN RAILWAY COMPANY, *Defendant.*	)	STB Docket No. 42072

DEFENDANT NORFOLK SOUTHERN RAILWAY COMPANY'S PETITION FOR RECONSIDERATION

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Counsel for Defendant Norfolk Southern Railway Company

DATED: January 20, 2004

TABLE OF CONTENTS

Pursuant to 49 C.F.R. § 1115.3, Norfolk Southern Railway Company ("NS") petitions the Board for reconsideration of certain aspects of the decision served in the above-captioned proceeding on December 23, 2003 (the "Decision"). NS has identified several material errors in the Decision that warrant reconsideration and correction by the Board. See 49 C.F.R. § 1115.3; see generally, 49 U.S.C. § 721; Annual Volume Rates on Coal – Wyoming to Flint Creek, Ark., 364 I.C.C. 753, 754-55 (1981). Part I below summarizes technical and computational errors that the Board itself may by now have detected and will certainly correct. Parts II through IV discuss other aspects of the Decision that NS believes are materially erroneous, and should also be corrected.

I. TECHNICAL AND COMPUTATIONAL ERRORS

A. Traffic and Revenue ($41.2 Million Average Annual Revenue Overstatement)

A review of the Board's workpapers shows that, in at least two respects, the Board failed to calculate traffic volumes in a manner consistent with the methodology that the Decision indicates the Board adopted. First, in calculating P&SH traffic volumes for 2002-2004, the Board purported to rely on EIA actual production and forecast numbers; however, the Board's workpapers show that the 2002-2004 volumes for CP&L traffic to Hyco and Mayo Creek, NC, and for Duke traffic to Belews Creek, Belmont, Eden and Spencer, NC, adopted in the Decision are based upon the very NS forecasts the Decision declares to be inaccurate. See STB WP "Final revenues and Tons.xls", worksheets "CPL" and "Duke."

Second, although the Decision purported to use the "actual rate of change reported by EIA for Central Appalachian region tonnage from 2001 to 2002" (Decision at 18), it did not do so. The Board's workpapers indicate that the 5.5% decline in Central Appalachian production upon which the Board relied was derived from the EIA's 2003 Annual Energy Outlook ("AEO"), a preliminary report published in January 2003. See STB WP "Final revenues and Tons.xls," worksheet "Forecast All Movements," row 493. Those EIA data do not include the final actual coal production figures for 2002. The EIA's final year-end actual data indicate that Central Appalachian coal volumes fell by 7.9% (not 5.5%) between 2001 and 2002. See Table 1. Both the EIA's January 2003 AEO (relied

upon the Board), and the EIA data in Table 1 were published before the Board issued its Decision. To the extent the Board is going to take "official notice" of government data as the best evidence of actual traffic moving during the last quarter of 2002, the Board should clearly rely upon the most up-to-date and complete government data available.

TABLE 1: EIA Reported Central Appalachian Coal Volumes[1]

	Change in 2002			Change in 2003		
	YE 2001 (000)	YE 2002 (000)	Percent Change	12/20/2002 (000)	12/20/2003 (000)	Percent Change
Eastern Kentucky	109,427	99,618	-9.0%	97,429	88,845	-8.8%
Southern West Virginia	124,460	116,189	-6.6%	113,569	104,464	-8.0%
Virginia	33,060	30,126	-8.9%	29,368	30,233	2.9%
Total	**266,947**	**245,933**	**-7.9%**	**240,366**	**223,542**	**-7.0%**

B. Tunnel Costs ($62.5 Million Understatement of Construction Costs)

The Decision adopted NS' evidence showing that ten tunnels on the P&SH would require double-tracking, and that the cost of a double-tracked tunnel "would be 175% of the cost of a single-track tunnel." Decision at 94. However, the Board's workpaper calculations did not include the double-track tunnel costs adopted in the text of the Decision. See STB WP "DCF Construction Total.xls" at tab "Tunnel Inv." This appears to be an inadvertent technical error. Adjusting the Board's calculations to include the 175% adjustment for double-tracked tunnels increases P&SH road property investment costs by approximately $62.5 million (including the engineering, contingency, and mobilization additives adopted by the Decision) See NS Recon. WP "DCF Construction Total.xls."

C. Locomotives for MOW Trains ($0.9 Million Annual Understatement of Costs)

The Decision (at 26) adopted NS' proposed operating plan, and accepted "the basic number of road, helper and switch locomotives" specified by NS. Id. at 56. But the Board's workpapers indicate that, in addition to applying a lower "spare margin" than that proposed by NS, the Board eliminated three locomotives that would be needed to power P&SH maintenance of way work trains. See STB WP "Equipment Counts (Modified Off Jct) – stb.xls".

[1] http://www.eia.doe.gov/cneaf/coal/weekly/weekly_html/archmonth.html and http://www.eia.doe.gov/cneaf/coal/weekly/weekly_html/wcpweek.html.

NS showed that maintenance of the P&SH's lines would require approximately 480 work train days per year. NS Reply III-D-120 to 121. NS' operating plan included three locomotive units to power those work trains. See NS Supp. WP "Equipment Counts (CPL) (Modified Off. Jct).xls", cell D20 (click on linked calculation). NS did not otherwise provide for work trains in its calculation of road locomotive requirements. Compare NS Reply WP "LUMs and carmiles (CPL-NS) v2 (Modified Off Jct).xls", Tab "Summary", cell C45 (157.7 locomotives required to power P&SH freight trains) with NS Supp. WP "Equipment Counts.(CPL) (Modified Off Jct).xls", cell D20 (adding 3 work train locomotives to total in cell C45). Restoring these three excluded units increases the P&SH's annual locomotive lease expense by $528,817, and its locomotive maintenance expense by $367,950 annually.

D. P&SH Operating Expenses ($13.7 Million Annual Understatement of Costs)

The Board adopted NS' methodology for calculating P&SH operating expenses. Decision at 54. NS first calculated operating statistics for the P&SH's peak year traffic (which, based upon NS' Supplemental Evidence, would be 2003). See NS Supp. WP "CPL revenue_tariff Revised_noreroute.xls." NS then developed base-year operating statistics by applying to the peak year operating statistics the ratio of base-year tons to peak-year tons. See NS Supp. WP "Equipment Counts (CPL) (Modified Off Jct).xls."

The Board made two errors in applying this methodology to its revised P&SH tonnage.[2] First, the Board developed peak-year operating statistics based on the wrong "peak" year. Consistent with the traffic projections adopted by the Decision, the P&SH's "peak" year should be 2008 (not 2003). See STB WP "Final revenues and Tons.xls." However, the Board used 2003 volumes to develop P&SH peak-year operating statistics. See STB WP "stb-LUMs and Carmiles (CPL-NS) v2 (Modified Off Jct).xls." Second, the Board applied the wrong ratio to its (incorrect) peak-year operating statistics in calculating the P&SH's base-year operating statistics. Instead of developing a ratio reflecting the base-year (2002) and peak-year (2008) tons adopted in the Decision, the Board applied the same ratio (85.7%) used in NS' evidence (based upon NS' tonnage projections for the

[2] The Board also made material errors in calculating P&SH tonnage and revenues. See II, infra.

years 2002 and 2003). See STB WP "stb-Equipment Counts (CPL) (Modified Off Jct).xls" Tab "Operating Expense Inputs." The cumulative impact of these errors was to understate P&SH operating costs by approximately $13.7 million annually. In effect, the Board's calculations erroneously enable the P&SH to handle a significantly larger volume of tons than that projected by NS, at little or no additional expense.

NS has recalculated the P&SH's peak-year and base-year operating expenses, based upon the traffic projections adopted in the Decision and the same methodology used by NS in preparing its evidence. Specifically, NS calculated peak-year operating statistics based upon the P&SH's 2008 tons (as determined by the Board). NS then developed the P&SH's base-year operating expenses by applying to those peak-year operating statistics a tonnage ratio reflecting the relationship between the P&SH's 2002 and 2008 tons . See NS Recon. WP "stb-Operating Expense NS-12-22-03 (Modified) 2008 Analysis.xls." Correcting the Board's errors in applying the operating expense methodology increases the P&SH's annual operating expenses by $13.7 million.

E. Operating Managers/G&A ($1.27 Million Annual Cost Overstatement)

NS has also identified a discrepancy between the Decision and the Board's workpapers with respect to the number of operating managers and general administrative personnel. The impact of correcting the workpaper errors to conform to the findings in the text of the Decision is to reduce P&SH operating expenses by approximately $1.27 million annually.

F. Startup Costs ($8.8 Million Understatement of 2002 Costs)

Although the Decision found the P&SH would incur $8.8 million in first-year startup costs (primarily training costs), the Board's workpapers neglected to include those costs. Compare Decision at 55, Table C-1 ($8.8 million in start-up costs) with STB WP "Final DCF," Tab "Operating SAC." Correcting this technical error increases first-year SARR operating costs by $8.8 million.

G. New Yard Earthwork Costs ($73 Million Overstatement of Earthwork Costs)

Based on its review of the staff workpapers supporting the Decision, NS believes the Board calculated earthwork quantities for new yards (i.e. yards that do not exist today on NS' system) in a manner that is inconsistent with the text of the Decision. While the text of the Decision accepts CP&L's earthwork quantities for two yards built in locations in which no yard exists today (at Kenova and Vabrook), the workpapers used NS' earthwork quantities as the basis for calculating the earthwork costs associated with building those yards. Compare Decision at 79 with STB Decision WP "III-F-2 Grading.xls." In addition, the Decision inadvertently doubled the earthwork quantities for the Kenova and Vabrook yards. Compare NS Reply WP "III-F-2 Grading.xls." with STB Decision WP "III-F-2 Grading.xls." Correcting these apparent errors would reduce P&SH road property investment costs (including additives) by approximately $73 million.[3]

II. TRAFFIC AND REVENUE ($127 Million Average Annual Revenue Overstatement)

NS has identified two principal errors in the Decision's traffic and revenue approach. First, despite longstanding Board precedent favoring line-specific actual traffic volume data over more general data, the Decision rejected NS' actual P&SH line-specific data for 2002, and instead estimated P&SH traffic by applying a ratio derived from preliminary region-wide EIA data to adjust 2001 traffic data. Second, contrary to sound precedent favoring actual data over forecasts, the Board used outdated EIA long term forecast data to estimate fourth quarter 2002 and full year 2003 P&SH traffic, when EIA's actual production data are available for those periods.

2002 Traffic Volumes. CP&L selected an odd hybrid traffic group for the P&SH in its Opening Evidence by (1) identifying the origin/destination ("O/D") pairs for that group, (2) selecting only a portion of the traffic moving between those O/D pairs in 2001, and (3) adding the amount of traffic CP&L projected to move between those same O/D pairs in 2002, based on an amalgam of the NS 2002 course-of-business forecast plus traffic from 2001 origins (approximately 8.2 million tons)

[3] In its substantive error discussion (part IV-D), NS shows that the more appropriate correction would be to eliminate only the inadvertent double-counting of the earthwork costs for the two new yards, thereby reducing road property investment costs by approximately $39 million, not $73 million.

that was not included in NS' forecast (because that forecast projected such movements would change origins, or cease to move altogether, in 2002).

NS' Reply estimated 63.8 million tons of P&SH 2002 coal traffic (a 13.7% drop from 2001 to 2002).[4] NS' estimate was based upon (1) actual tonnages between the O/D pairs identified by CP&L in its Opening evidence for the first nine months of 2002 (the period for which actual data were available at that time) and (2) NS' forecast monthly volumes and revenues for the last three months of 2002 which NS recognized at the time were overstated, but nonetheless were used because tonnages from such forecasts had been used by the STB in prior cases. The Board cited two grounds for rejecting the P&SH volumes proposed by NS: (1) that NS excluded coal traffic that should have been included in the P&SH traffic group as defined by CP&L, and (2) that a bias in the NS numbers is demonstrated by the fact that they show a much greater decline in coal carried by the P&SH than coal production and traffic declined generally in the CAPP region. Neither is a valid basis for rejecting NS' estimated volumes for 2002.

The Board said it rejected NS' 2002 tonnage because NS did not include all of the coal that could have moved over the lines replicated by the P&SH. Although the Board is correct in its statement, the Board should also recognize that exclusion of some coal that could have moved over lines replicated by P&SH is required by the traffic group selected by CP&L. NS admits that it had difficulty in determining precisely what traffic CP&L had selected, but the Board must acknowledge that CP&L affirmatively excluded some of the coal that the P&SH could have moved. For example, CP&L omitted traffic moving between Newhall, WV and Belews Creek, NC (343,654 tons), Critical Fork, VA and Hopewell, VA (160,820 tons), Norton, VA and Chesapeake, VA (139,604 tons), Graceland, VA and Chesapeake, VA (97,976 tons) and Phelps, KY and Alexandria, VA (97,650 tons).[5] Notwithstanding any imperfections that might be found in NS' attempt to define the precise

[4] The Board and the parties agree that 77.8 million tons (74.0 of coal and 3.8 of grain traffic) moved over the P&SH network in 2001. See STB workpapers at Final revenues and Tons.xls; CP&L Reb. III-A-22, Table III-A-6. In the remainder of this section, references will be to coal volumes. While the 3.8 million tons of grain are excluded in these references, they are, of course, included in NS' calculations of total P&SH traffic.

[5] Compare these OD Pairs in CP&L's list of all NS Traffic (CP&L Rebuttal "Rebuttal Piedmont RR

boundaries of the traffic group selected by CP&L, the NS 2002 traffic evidence remains the best estimate. The Board cannot expand the traffic group selected by a complaining shipper and should not give the shipper the benefit of any doubt arising out of the shipper's failure to define with precision the traffic group it has selected. Any tonnage missing from the NS evidence reflecting actual movements of traffic over the P&SH network during the first nine months of 2002 (due to CP&L's lack of precision in the selection of its traffic group) is offset by the overstatement of fourth quarter tonnage resulting from NS' use of an overly optimistic internal forecast that coal would increase for the quarter when, in fact, EIA data show a large decrease (as shown below).

As to the alleged bias in the NS numbers, there is no reason, much less any evidence in the record, to assume, as the Board does, that the changes in traffic volumes between 2001 and 2002 over the lines comprising the P&SH network (a railroad serving less than 28% of the current production of the Central Appalachian region) are the same or similar to changes in region-wide coal production data. To the contrary, the line-specific actual production evidence filed by both NS and CP&L showed that coal volumes over the P&SH network during 2002 declined far more substantially than the average decline in coal production for the Central Appalachian region as a whole. NS' line-specific traffic data show that coal traffic over the P&SH network declined by an estimated 18% during the first nine months of 2002.[6] Even CP&L's line-specific traffic data show a 13% decline in

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Coal Traffic Forecast - JD Energy.xls" at worksheet "NS 2001 System Tons") with CP&L's P&SH OD Pairs in its traffic and revenue forecast (CP&L Rebuttal "Rebuttal Piedmont RR Coal Traffic Forecast - JD Energy.xls" at worksheet "Stand-Alone Coal Forecast.")

[6] See NS Reply Piedmont RR Coal Traffic Forecastrevised.xls at worksheet Coal Forecast By Calendar Year (comparing 75% of 2001 tons to first three quarters 2002 coal tonnages). The far more precipitous decline in 2002 coal traffic over the lines of the P&SH than in the Central Appalachian region generally is largely explained by the more than 25% decline of Export, Lake and River traffic in the first nine months (approximately 6.5 million tons annualized), which alone causes an annual decline for 2002, when compared to the overall 2001 P&SH coal traffic base, of approximately 9%. NS Reply Electronic Workpapers traffic1.zip. This accounts for nearly two-thirds of the entire decline projected by NS for the P&SH in 2002. Thus, the 13% decline in P&SH coal traffic from 2001 to 2002 was the result of a combination of the significant drop in Export, Lake, and River traffic, along with somewhat more modest declines in other traffic segments.

traffic over the P&SH network during this period.[7] Although CP&L started from a higher traffic base, the key point is that even CP&L recognized that coal volumes moving over the P&SH network declined more than did volumes in the region as a whole. As to the fourth quarter of 2002 (the period for which at the time of the filing no actual data were available), EIA data reflecting actual Central Appalachian coal production show that the rate of decline in coal volumes – 12.4% – was much greater than the rate of decline during the first three quarters.[8]

In sum, NS' evidence projecting 2002 traffic volumes should be adopted as the best evidence of record because (i) it is based on line-specific data;[9] (ii) the 13% decline reflected in that evidence is supported by CP&L's line-specific evidence of traffic moving over the P&SH network; and (iii) it is supported by EIA data reflecting actual CAPP coal production during the last quarter. Accordingly, the Board should use 63.8 million tons as its coal traffic projection for 2002.

2003 Traffic Volumes. The Decision (at 18) states that to project 2003 levels it "rel[ied] on EIA forecasts rather than NS's internal business forecasts, in view of the demonstrated inaccuracy of the NS forecasts [upon which both NS and CP&L had relied] and the general preference for reliance on official neutral governmental forecasts." NS believes the Board should have used EIA actual production numbers rather than EIA forecasts because the actual production numbers are more accurate by definition.

To project 2003 volumes for P&SH coal traffic, the Board relied upon the EIA January 2003 forecast that Central Appalachian coal production would increase by 0.2% from 2002 to 2003. See STB WP "Final revenues and Tons.xls" at worksheet "Forecast All Movements," row 493. However,

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[7] CP&L Rebuttal electronic workpaper "Reb. WP "Piedmont RR Coal Traffic Forecast – EIA.xls" at worksheet "Stand-Alone Coal Forecast" cells U491 and X491 (estimating that the P&SH coal traffic would fall from 57.25 to 49.75 million tons from the first 9 months 2001 to the first 9 months 2002).

[8] According to the EIA data, Central Appalachian coal volumes (defined as Eastern Kentucky, Southern West Virginia, and Virginia) declined 6.4% in the first 3 quarters 2002 compared to the same 3 quarters in 2001, while the fourth quarter 2002 observed a 12.4% decline as compared to the fourth quarter in 2001. http://www.eia.doe.gov/cneaf/coal/weekly/weekly_html/archmonth.html and http://www.eia.doe.gov/cneaf/coal/weekly/weekly_html/wcpweek.html.

[9] See Decision at 14 ("[m]ore specific evidence is generally preferred over more general evidence").

in relying on this EIA forecast, the Board erroneously ignored subsequent EIA data — reflected in Table 1 above — showing that actual Central Appalachian coal production decreased by 7.0% in 2003.[10] Again, to the extent the Board is going to take "judicial notice" of such official government data as the best evidence of actual traffic moving during 2003, it is indefensible and contrary to Board precedent to rely upon forecasts when actual production data for the same period are available (and demonstrate that the forecasts are inaccurate).

Moreover, the Board ignored the best evidence of record, the tonnages in the NS Alternative Case. NS' Alternative Case projected a 2.5% decline in P&SH coal traffic between 2002 and 2003. The 2003 EIA actual numbers set forth in Table 1 — showing a 7.0% decline from 2002 to 2003 — confirm that the tonnages contained in the NS Alternative Case (while still overstating actual volume) are the closest record evidence figures to actual coal movements in 2003.

2004-2021 Traffic Volumes. During the course of the proceedings both parties relied, at least in part, upon forecast data for Central Appalachia from EIA AEO 2002 in order to project traffic volumes for 2004-2021. EIA 2002 projected a cumulative change in CAAP coal production for that period of –14.4%. In its Decision, in order to forecast traffic volumes for 2002-2021, the Board reached outside of the record and relied upon EIA AEO 2003. For the period 2004-2021, AEO 2003 forecast a cumulative change in CAAP coal production of +4.3%. AEO EIA 2004 has now been released, reflecting a cumulative change in CAAP coal production for 2004-2021 of –7.0%. (EIA http://www.eia.doe.gov/oiaf/aeo/supplement/index.html). Again, to the extent the Board is going to take "official notice" of government data published after the close of the record, it should clearly rely upon the most up-to-date government forecast for this later period as well – especially when, as here, it is significantly different from the one relied upon in a Decision that is clearly going to be modified in other respects in any event.

[10] NS presented the EIA data reflecting this 7.0% decrease in 2003 at the oral argument on November 19, 2003 (see Tr. at 72-73). Although the Decision (at 16) refers to this portion of the argument, it ignores the EIA data specifically referenced by NS counsel. Moreover, the Board's use of the 0.2% increase is further undermined by the just-released EIA AEO 2004 report that shows an even larger decrease -- 11.36% -- in 2003.

Based on the above, the Board should: (1) for 2002, find that P&SH coal tonnages are those calculated by NS (63.8 million tons); (2) for 2003, find that the coal volumes in the NS Alternative Case (62.2 million tons) constitute the best evidence of record, or, if the Board rejects those tonnages, find that 59.4 million tons will be transported by the P&SH (2002 tonnage of 63.8 million tons reduced by 7.0% – the actual decline, rather than the 0.2% forecasted increase – reported by EIA between 2002 and 2003; and (3) for 2004-2021, apply the EIA percentage change starting with the 2003 tonnage as the base. While for illustrative purposes in this motion NS has used the EIA AEO 2003 percentages because they were used by the Board in its Decision, NS believes the Board should evaluate the evidence in light of the most recent numbers issued by EIA, i.e., EIA AEO 2004.

III. OPERATING PLAN AND COSTS

A. Retrofitting NS Locomotives For DP Operations ($26.1 Million Error)

The Decision (at 57-58) excluded from P&SH operating expenses the $26.1 million cost of retrofitting NS locomotives with the equipment required to enable those units to operate in a Distributed Power ("DP") configuration while on the P&SH's lines. The premise underlying the Board's ruling -- that NS locomotives would never run-through on the P&SH's lines, so that "there would be no need to equip residual NS locomotives to operate in DP service" (id. at 57-58) — is contrary to the undisputed record evidence.

CP&L's proposed operating plan contemplated that "[a]ll of the Piedmont RR's unit train coal traffic that is interchanged to NS ... will be handled in run-through service." CP&L Op. III-C-14. NS' Reply accepted this premise. However, NS showed that CP&L's choice of AC4400 locomotives for the P&SH would "complicate its plan to utilize run-through power" (NS Reply III-C-10), because the NS fleet consists almost entirely of incompatible DC units (id. III-C-10 to 12). On Rebuttal, CP&L argued that NS "overstated the problems associated with mixing AC and DC units in run-through service." CP&L Reb. III-C-17. Thus, CP&L and NS agreed that NS locomotives would run through on the P&SH's lines (although they disagreed about the feasibility of commingling AC and DC locomotives in such run-through operations). Nor did NS take issue with CP&L's proposed use

of DP on those portions of the P&SH specified in CP&L's Opening Evidence. NS. Br. 28; see CP&L Op. III-C-13 to 14. NS did challenge CP&L's attempt —for the first time on Rebuttal — to extend the use of DP to virtually the entire P&SH system (see CP&L Reb. Exh. III-C-4), but the Decision (at 41) adopted CP&L's Rebuttal proposal.

What NS did object to in its Reply was CP&L's proposal to force NS to accept an additional (and, for NS, unneeded) rear-end locomotive unit on trains received in interchange from the P&SH. NS does not utilize a DP locomotive configuration in its coal operations, its rail lines are not equipped with the communications facilities required to support DP operations, and NS would not need the additional rear-end unit to move trains in NS territory. NS Reply III-C-23 to 24, III-C-31 to 32. Accordingly, NS' operating plan provided that "the rear-end DP units" would be removed from P&SH trains prior to interchange to NS. Id. at III-C-23 to 24; III-C-32. CP&L confirmed its understanding that, under NS's operating plan, the P&SH would remove only the "rear end DP units" — not the entire locomotive consist — from P&SH trains interchanged to NS. CP&L Reb. III-C-52 (quoting NS Reply at III-C-32). CP&L argued that NS should be required to accept P&SH trains with the rear-end units attached. CP&L Reb. III-C-52 to 54.

Thus, the undisputed record evidence was that NS locomotive units would, in fact, run through on P&SH lines, and would, in certain circumstances, operate in a DP configuration. The Decision (at 26) adopted NS' operating plan, and accepted the broader use of DP power proposed by CP&L's Rebuttal (id. 41). In order for NS locomotives to operate in a DP configuration while on P&SH lines (as provided for in the Decision), those units would have to be equipped for DP operations. The undisputed record evidence shows that the cost of retrofitting the affected NS locomotives for DP operations would be approximately $26.1 million. NS Reply III-D-4. The Board's failure to include this expense in its calculation of P&SH operating costs constitutes material error. See 49 C.F.R. 1115.3(a)(2).

IV. ROAD PROPERTY INVESTMENT

A. Rejection of NS Excavator ($238 Million Understatement of Construction Costs).

The Board should reconsider its acceptance of the crawler crane CP&L introduced for the first time on Rebuttal, and instead adopt the excavator unit costs for common earthwork, loose rock, and solid rock for the territory north and west of Roanoke proffered in NS' Reply. The Board properly rejected some of the new earthmoving equipment CP&L introduced on Rebuttal (and adopted NS' hauler and bulldozer), because CP&L had not shown that NS' Reply equipment was infeasible or unrealistic. Decision at 81. The Board should apply the same rule to reject the crawler crane CP&L substituted on Rebuttal (and adopt NS' excavator unit costs) for the very same reason: CP&L abandoned its opening equipment, and has not shown that the equipment NS proffered on Reply is infeasible or unrealistic.

1. CP&L's Burden of Proof -- It Has Failed To Meet The Governing Standard.

As the Decision recognized, after NS' Reply demonstrated that the paddle pan scraper CP&L proposed in its case-in-chief was inadequate and infeasible for the required excavation, CP&L abandoned it, and on Rebuttal proposed entirely new excavation equipment and methods. See Decision at 81. Because NS demonstrated that CP&L's Opening excavator was infeasible, the Board's limitations on rebuttal evidence make clear that it must adopt the excavators (and corresponding unit costs) NS specified in its Reply Evidence, *unless* CP&L's rebuttal demonstrated that NS' excavators are infeasible, or unrealistic. See, e.g., Duke/NS, slip op at 14 ("[W]here on reply the railroad . . . offers feasible, realistic alternative evidence that avoids the infirmities in the shipper's [infeasible] evidence and that is itself supported, the Board will use the [railroad's] reply evidence for its SAC analysis."); Decision at 81. NS met the Duke/NS standard in its Reply evidence, demonstrating that the excavation equipment it selected was both feasible and realistic (See, e.g., NS Reply III-F-21 to 26), a point that CP&L conceded. See CP&L Reb. III-F-41 ("CP&L's experts have reviewed NS's evidence and concur that equipment other than that used by CP&L *could* be used to accomplish the earthwork requirements for the Piedmont RR west of Roanoke.") (emphasis in original).

Having conceded the feasibility of NS' proposal, it was CP&L's burden to demonstrate both that NS' proposal was "unrealistic" (in the sense that the excavating equipment proposed was too expensive given available alternatives) and that CP&L's new rebuttal proposal was itself feasible and realistic. Although the precise evidentiary standard that CP&L must meet in these circumstances could be defined as "clear and convincing evidence", or possibly even "preponderance of the evidence," CP&L's rebuttal contains no evidence that could approach satisfaction of either standard. Rather that submission – offering a new construction proposal for the first time when NS had no further opportunity to file evidence – simply made a passing (and erroneous) reference to the nature of NS' excavator as being akin to a trenching device, and it failed completely to provide any kind of supported rationale for why CP&L's new proposal was itself feasible and realistic.

CP&L's claim that the equipment NS selected is intended for digging trenches is false. The Decision noted CP&L's unsupported assertion that the general type of equipment associated with the excavator unit costs NS selected on Reply was "more useful in digging a trench." CPL Reb. III-F-42; see Decision at 81. Apparently extrapolating from that erroneous general assertion, the Decision mistakenly surmised that the specific equipment NS selected was "designed primarily for trenching," and would be "relatively inefficient for other [non-trenching] types of excavation." Compare CP&L Reb. III-F-42 with Decision at 81. Contrary to CP&L's one-sentence, unsupported assertion, the heavy construction equipment that NS selected as its excavator on Reply is emphatically not a "Ditch Witch," nor is it "designed primarily for trenching" (id.). It is a large excavator commonly used in heavy construction in conditions like those at issue in this case, and thus is not only feasible, but eminently realistic and reasonable for construction of the P&SH right-of-way.

Review of the R.S. Means Heavy Construction Cost Data manual (2002) ("Means" or "Manual") shows that CP&L's characterization of NS' heavy duty excavator as a "trenching tool" is simply wrong. The equipment NS selected from the "Excavating Bulk Bank Measure, Common Earth Piled" and "Drilling and Blasting Only, Rock, Open Face" categories of Means are large excavators on crawling tracks, with a forward-facing hydraulic arm connected to a 3 cubic yard bucket. See NS Reply WP-III-F-0064. This is precisely the type of equipment commonly used in a

variety of heavy excavation and construction projects, not a "trenching tool." Indeed, there is an entirely separate Means equipment category for trenching equipment. See R.S. Means Categories "Excavating, Trench or Continuous Footing." and "Excavating, Utility Trench." (for convenience, copies of these pages of the published industry standard Means manual are attached hereto as Exhibit 1). The equipment NS selected is listed in the "Excavating, Bulk Bank Measure, Common Earth Piled" section of Means, the same section that lists the equipment CP&L selected on Rebuttal. See e.g., CPL Reb. III-F-42 (stating that the equipment CP&L selected — from Means "Excavating Bulk Bank . . ." category, "is **the type of equipment used for the economical movement of excavated material from the embankment to the haulers both in heavy construction projects and in rock quarries.**")(emphasis added); see also Means "Drilling and Blasting Only, Rock, Open Face" section (NS' solid rock and boulders excavating equipment)

2. CP&L's Rebuttal Equipment is Itself Infeasible, And Could Not Be Used to Excavate the P&SH Roadbed In a Realistic, Cost-Effective Manner.

Although CP&L's Rebuttal narrative claimed that its substituted equipment was suited for P&SH excavation tasks, careful review of the evidence demonstrates that it is not. It is instead an enormous crane, equipped with a long "lattice" boom and the same 3 cubic-yard bucket as the excavator proposed by NS. See CP&L Reb. WP "III-F_Grading Piedmont RR Rebuttal.123" at tab "IIIF Unit Costs." Contrary to CP&L's representation, which the Decision accepted, this crawler crane is not a "power shovel" that is "more suited for excavation," but rather an unwieldy, oversized lattice-boom crane that is ill-suited to the type of excavation that would be necessary to build the P&SH.[11] To confirm this, the Board should work back from the unit costs specified for the device with a "Crew B-12T," which the Means Manual clearly states is "1 Crawler Crane, 75 ton" with a

[11] It is possible that CP&L itself was misled by Means' inclusion of the crawler crane in the "power shovel" section particularly if, as it appears, CP&L was more focused on finding the lowest unit cost than on determining the nature and feasibility of the equipment associated with that unit cost. Careful review of the entire Means identification of the equipment, however, shows that it is not a power shovel, but rather a huge crane, equipped with a lengthy and unwieldy boom. At oral argument NS counsel explained (using demonstrative exhibits displaying the relevant Means pages) CP&L's mis-identification of the equipment associated with the Means unit costs it substituted on Rebuttal.

capacity of "3 C.Y., 75 tons at 12' radius". See CP&L Reb. WP "III-F_Grading Piedmont RR Rebuttal.123" at tab "IIIF Unit Costs"; R.S. Means tables (copies attached hereto as Exhibit 2).

The reason CP&L selected the crawler crane on Rebuttal is obvious – Means indicates that, in appropriate applications, the crane has a very low unit cost. This begs the question that CP&L, in its singleminded focus on selecting the lowest available unit cost, failed to address – could the crawler crane realistically be used for the purposes for which CP&L designated it? The answer is unequivocally, "No." CP&L did not — and could not — submit any documentary evidence to show that the crawler crane it selected would be feasible or realistic for excavating the P&SH roadbed. To the contrary, CP&L's rebuttal crane would be completely infeasible for use in the rugged, mountainous terrain in which the P&SH right-of-way would be excavated. That crane is designed and intended for moving and loading loose, relatively fine materials in large, open, fixed-location projects like quarries, open pits, and dredging. In appropriate locations and conditions, such a crawler crane is highly efficient at moving large quantities of soft earth, small rock, granular materials, and the like. This is why — in appropriate locations and applications (such as the rock quarries and similar open-area heavy construction applications cited by Means) — the crawler crane would be able to achieve greater productivity (and hence a low unit cost of approximately $1.07 per cubic yard) using the same size bucket (3 cubic yards) used by NS' excavator (whose unit cost is approximately $2.36 per cubic yard).

The unwieldy crawler crane would be inadequate and infeasible, however, for the entirely different use for which CP&L has designated it — scooping up, moving, and loading large, hard rocks, packed soil, and boulders on a long narrow roadbed in the rugged, mountainous, rocky, and heavily wooded terrain the PS&H would traverse. Prior to the three pending Eastern cases, such ill-suited equipment had never before been proposed by any party in a SAC case (including Western cases, where the terrain is less challenging). The reason a lattice-boom crawler crane (and the low Means unit costs associated with it) was never advocated in any previous SAC case is not that Western shippers were ignorant or declined to act in their own best interests. Rather, it is because such a crane is not designed or intended for — and would be wholly infeasible for — the tasks

necessary to excavate a railroad bed. In addition to lacking the leverage and maneuverability necessary to conduct hard rock excavation and movement tasks, the lattice-boom crane CP&L selected lacks the mobility necessary to make the frequent movements along the narrow railroad right-of-way that would be necessary to construct the P&SH roadbed. For example, each time construction activity moved more than a few hundred yards down the right-of-way, the entire lattice boom would need to be disassembled into three pieces, loaded on tractor-trailer trucks to be transported to the next location, and then reinstalled on the crane platform.

CP&L offered nothing of substance that even attempted to show its crawler crane was feasible, let alone adequately supported substantive evidence sufficient to meet the heavy burden of proof it must bear in the face of the significant change from its Opening proposal and its concession that NS' proposal is a feasible one. The effect of the Decision's adopting the infeasible crawler crane CP&L substituted on Rebuttal rather than the well-suited excavators designated by NS is a substantial overstatement of the amount of earth that could actually be moved in a given time period. This, in turn, significantly understates the correct cost for P&SH earthwork. Correcting the Decision to substitute NS' excavating equipment for the infeasible crawler crane CP&L introduced on rebuttal increases P&SH earthwork costs (for the territory north and west of Roanoke) by approximately $238.4 million ($57.1 million for common earthwork and loose rock, and $181.3 million for solid rock), assuming the same engineering and mobilization additives adopted in the Decision. See NS Recon. WP "Copy of III F 2 Grading.xls."

B. Hauling Costs – Adverse Conditions Adjustment ($83.8 Million Understatement)

Because the Central Appalachian terrain traversed by the SARR north and west of Roanoke contains some of the most rugged and challenging topography through which a heavy density coal hauling railroad has ever been constructed, NS applied the Means additive for "Rough Terrain or Steep Grades" to the unit costs for hauling excavated materials on that rugged, hilly segment of the SARR. See NS Reply III-F-22. Hauling excavated materials through this rough terrain would be a slow, difficult process, and the standard Means unit costs for hauling do not account for the

inevitably lower hauling equipment production rates, and correspondingly higher hauling costs, the builders of the P&SH would experience. The hauling activity at issue involves transporting rock and other materials that have been excavated from a section of the proposed P&SH right-of-way whose ground elevation is too high for the railroad, to other sections of the proposed P&SH right-of-way that are too low, and dumping the excavated materials to partially fill those low spots in the future railroad bed. The terrain between the high elevations and the low elevations that the haulers must traverse is rugged and frequently involves steep grades. CP&L's suggestion that the haulers would travel on a flat roadbed misperceives the process. A level roadbed is the intended end result of this expensive and time-consuming process, not the starting point. At the stage in which the haulers are transporting these excavated materials (which is closer to the beginning than the end of the construction process), and until that process is completed, there is no level roadbed, just steep hills and valleys that must be negotiated by heavy hauling trucks.

NS' experts determined that the terrain and steep grades north and west of Roanoke present a paradigmatic example of the circumstances for which the Means adverse conditions ("rough terrain and steep grades") hauling additive is designed. Although some of the territory south and east of Roanoke is fairly rugged, NS conservatively applied the adverse conditions additive only to the portions of the P&SH to the north and west of Roanoke. The Decision nonetheless refused to apply the adverse conditions additive that Means prescribes for hauling over rough terrain and steep grades. Decision at 81.

It appears that the Board may have decided not to adopt the adverse conditions hauling cost additive because it believed that NS was advocating the application of that additive to all grading costs, rather than simply to hauling costs. See Decision at 81 (rejecting the rough terrain unit cost adjustment for "grading the line west of Roanoke."). This is not correct. NS' evidence applied the adverse conditions additive only to the costs of hauling west of Roanoke, not to the costs of any other earthwork or grading activity. See NS Reply III-F-28; NS Reply WP "III F 2 Grading.xls" at tab "IIIF Unit Costs." Because the adverse conditions additive is appropriate for the costs of hauling through this extraordinary terrain, and because it appears the Decision's rejection of that additive may

have been based on an erroneous understanding of the scope of application of that additive, NS requests that the Board reconsider this aspect of the Decision and apply the adverse conditions additive to hauling costs. This adjustment would increase P&SH capital investment by approximately $83.8 million. See NS Recon. WP "DCF Construction Total.xls."

C. Clearing and Grubbing ($33.7 Million Understatement of Construction Costs)

The Board erred in adopting a unit cost for clearing and grubbing that CP&L's own evidence shows is incorrect and infeasible. The Board found that the costs of clearing and grubbing the P&SH's heavily forested right-of-way would be $22.1 million. Decision at 77, Table D-4. The Board appropriately adjusted the parties' estimates of the quantities of clearing and grubbing to comport with its findings on the number of track miles that the P&SH would require. Id. at 78. However, the Board erroneously adopted CP&L's use of the Means Manual unit costs for clearing and grubbing trees only up to 12 inches in diameter. See id. CP&L's own evidence conceded that 30% of the trees along the P&SH right-of-way exceed 12 inches in diameter (CP&L Reb. at III-F-21 to 22). By definition, the clearing and grubbing equipment CP&L selected in its case-in-chief would be infeasible for clearing the P&SH right-of-way because it could not remove 1-in-3 trees it would encounter (i.e., those trees that exceed 12 inches in diameter).

In its Opening Evidence, CP&L selected a clearing and grubbing unit cost for cutting, chipping and grubbing trees measuring 12 inches in diameter or less. On Reply, NS demonstrated that equipment that could only remove trees up to 12 inches in diameter would be inadequate to clear the P&SH right-of-way, which has many trees that substantially exceed that diameter. See, e.g., NS Reply at III-F-15 to 16. NS conservatively selected the next lowest Means unit cost, for trees up to 24 inches in diameter. See id.; NS Reply WP III-F-16. In its Rebuttal, CP&L responded that approximately 70% of the trees along the P&SH right-of-way would be 12 inches in diameter or less. See CP&L Reb. III-F-21-22. This necessarily concedes that approximately 30% of the trees along the right-of-way would be greater than 12 inches in diameter. Thus, CP&L's own evidence compels the conclusion that clearing the P&SH roadway would necessarily require use of the more robust

equipment necessary to remove trees up to 24 inches in diameter (i.e. the equipment NS specified in its Reply evidence). See NS Reply at III-F-15 to 16; NS Brief at 39. Correction of this error to reflect the unit costs of the equipment necessary to clear the P&SH right-of-way increases P&SH road property investment costs by approximately $33.7 million. See NS Recon. WP "DCF Construction Total.xls."

D. Yard Earthwork Costs ($34 Million Understatement)

The Decision accepted CP&L's position that earthwork quantities for new yards (specifically the Kenova and Vabrook yards) should be calculated using the same simplifying assumption designed to distribute earthwork quantities from the ICC Bureau of Valuation Engineering Reports ("Engineering Reports") to yards that were included in the earthwork quantities developed for those Reports. See Decision at 79 (the staff workpapers used NS' earthwork quantities rather than CP&L's quantities, supra at I.G, p. 5). [12] Where, however, a complainant posits a new yard in a location where no yard existed at the time the Engineering Reports were prepared, the logic of the default assumption no longer applies. Because the parties are no longer attempting to allocate specific known earthwork quantities among various component facilities of a system, there is no reason to estimate earthwork quantities based on the assumption that new yards would uniformly use one foot of fill. The more realistic approach is to develop site-specific estimates of the earthwork quantities that actually would need to be moved in order to construct the yard, which is the approach NS used to calculate quantities for the two new yards that CP&L included in its P&SH configuration. See NS Reply III-F-16 to 18; NS Reply WP "III F 2 Grading.xls." This methodology is consistent with the Board's repeatedly expressed preference for site-specific evidence over general evidence, system averages, and evidence based on default assumptions. Correction of this error would increase P&SH

[12] The Engineering Reports did not distinguish between earthwork quantities for mainline track and quantities for yards or sidings. In order to distribute earthwork quantities between mainline track and yards that existed at the time of the Engineering Reports, the Board has adopted a simplifying assumption that each yard in a valuation section used one foot of fill throughout the yard, and the remaining earth volume for such valuation sections is attributed to the mainline track. See NS Reply III-F-17 to 18. In a system in which no significant new yards are constructed, this default assumption (absent better evidence) is a reasonable way to distribute costs between road track and yards.

road property investment costs by approximately $34 million. See NS Reply WP "III-F-2 Grading.xls."

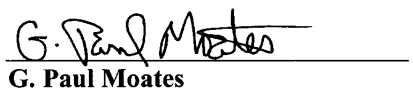
V. EFFECT OF CORRECTION OF ERRORS ON SAC RESULTS

NS has calculated the net effect on the SAC analysis of correcting the errors identified in this Petition (including errors whose correction would work against NS), and run new discounted cash flow analyses incorporating those corrections (while holding the Decision's other elements and inputs constant). Based on that analysis, NS concludes that correction of the errors would result in a net cumulative present value excess of SARR costs over SARR revenues of approximately $629 million. See Exhibit 3 (DCF summary table).

CONCLUSION

The Board should grant NS' reconsideration petition, correct each of the errors identified above, and revise the Decision to find that the challenged rates are not unreasonable.

Respectfully submitted,



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DATED: January 20, 2004

CERTIFICATE OF SERVICE

I hereby certify that, on this 20th day of January, 2004, I served the foregoing "Defendant Norfolk Southern Railway Company's Petition for Reconsideration" by causing five (5) copies thereof to be delivered, via hand delivery, to:

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Gabriel S. Meyer

Exhibit 1

NS Recon Exhibit 1

Heavy Construction Cost Data

16th Annual Edition

2002

02315 | Excavation and Fill

			CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2002 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P
800	3200	300 HP, 100' haul	B-10M	1,150	.010	C.Y.		.30	.90	1.20	1.44
	3250	300' haul	"	400	.030			.86	2.59	3.45	4.15
	3400	460 HP, 100' haul	B-10X	1,680	.007			.20	.82	1.02	1.21
	3450	300' haul	"	600	.020	↓		.57	2.29	2.86	3.39
900	0010	**EXCAVATING, TRENCH** or continuous footing, common earth R02315-400									
	0020	No sheeting or dewatering included									
	0050	1' to 4' deep, 3/8 C.Y. tractor loader/backhoe	B-11C	150	.107	C.Y.		2.92	1.19	4.11	5.75
	0060	1/2 C.Y. tractor loader/backhoe	B-11M	200	.080			2.19	1.08	3.27	4.54
	0062	3/4 C.Y. hydraulic backhoe	B-12F	270	.059			1.75	1.69	3.44	4.50
	0090	4' to 6' deep, 1/2 C.Y. tractor loader/backhoe	B-11M	200	.080			2.19	1.08	3.27	4.54
	0100	5/8 C.Y. hydraulic backhoe	B-12Q	250	.064			1.89	1.57	3.46	4.58
	0110	3/4 C.Y. hydraulic backhoe	B-12F	300	.053			1.57	1.52	3.09	4.06
	0120	1 C.Y. hydraulic backhoe	B-12A	400	.040			1.18	1.41	2.59	3.33
	0130	1-1/2 C.Y. hydraulic backhoe	B-12B	540	.030			.87	1.31	2.18	2.76
	0300	1/2 C.Y. hydraulic excavator, truck mounted	B-12J	200	.080			2.36	3.68	6.04	7.60
	0500	6' to 10' deep, 3/4 C.Y. hydraulic backhoe, 6' to 10' deep	B-12F	225	.071			2.10	2.03	4.13	5.40
	0510	1 C.Y. hydraulic backhoe	B-12A	400	.040			1.18	1.41	2.59	3.33
	0600	1 C.Y. hydraulic excavator, truck mounted	B-12K	400	.040			1.18	2.17	3.35	4.17
	0610	1-1/2 C.Y. hydraulic backhoe	B-12B	600	.027			.79	1.18	1.97	2.48
	0620	2-1/2 C.Y. hydraulic backhoe	B-12S	1,000	.016			.47	1.70	2.17	2.58
	0900	10' to 14' deep, 3/4 C.Y. hydraulic backhoe	B-12F	200	.080			2.36	2.28	4.64	6.10
	0910	1 C.Y. hydraulic backhoe	B-12A	360	.044			1.31	1.56	2.87	3.70
	1000	1-1/2 C.Y. hydraulic backhoe	B-12B	540	.030			.87	1.31	2.18	2.76
	1020	2-1/2 C.Y. hydraulic backhoe	B-12S	1,000	.016			.47	1.70	2.17	2.58
	1030	3 C.Y. hydraulic backhoe	B-12D	1,400	.011			.34	1.50	1.84	2.16
	1300	14' to 20' deep, 1 C.Y. hydraulic backhoe	B-12A	320	.050			1.48	1.76	3.24	4.17
	1310	1-1/2 C.Y. hydraulic backhoe	B-12B	480	.033			.98	1.47	2.45	3.11
	1320	2-1/2 C.Y. hydraulic backhoe	B-12S	850	.019			.56	2	2.56	3.04
	1330	3 C.Y. hydraulic backhoe	B-12D	1,000	.016			.47	2.09	2.56	3.01
	1400	By hand with pick and shovel 2' to 6' deep, light soil	1 Clab	8	1			23.50		23.50	36.50
	1500	Heavy soil	"	4	2			47		47	73
	1700	For tamping backfilled trenches, air tamp, add	A-1	100	.080			1.88	.61	2.49	3.59
	1900	Vibrating plate, add	B-18	230	.104	↓		2.52	.24	2.76	4.19
	2100	Trim sides and bottom for concrete pours, common earth		1,500	.016	S.F.		.39	.04	.43	.64
	2300	Hardpan	↓	600	.040	"		.96	.09	1.05	1.60
	2400	Pier and spread footing excavation, add to above				C.Y.				30%	30%
	3000	Backfill trench, F.E. loader, wheel mtd., 1 C.Y. bucket									
	3020	Minimal haul	B-10R	400	.030	C.Y.		.86	.54	1.40	1.90
	3040	100' haul		200	.060			1.72	1.07	2.79	3.80
	3060	200' haul	↓	100	.120			3.43	2.14	5.57	7.60
	3080	2-1/4 C.Y. bucket, minimum haul	B-10T	600	.020			.57	.62	1.19	1.55
	3090	100' haul		300	.040			1.14	1.23	2.37	3.10
	3100	200' haul	↓	150	.080	↓		2.29	2.47	4.76	6.20
	4000	For backfill with dozer, see div. 02315-120									
	4010	For compaction of backfill, see div. 02315-300									
940	0010	**EXCAVATING, UTILITY TRENCH** Common earth									
	0050	Trenching with chain trencher, 12 H.P., operator walking									
	0100	4" wide trench, 12" deep	B-53	800	.010	L.F.		.30	.11	.41	.57
	0150	18" deep		750	.011			.32	.11	.43	.61
	0200	24" deep		700	.011			.34	.12	.46	.65
	0300	6" wide trench, 12" deep		650	.012			.37	.13	.50	.70
	0350	18" deep		600	.013			.40	.14	.54	.76
	0400	24" deep		550	.015			.43	.16	.59	.83
	0450	36" deep		450	.018			.53	.19	.72	1.01
	0600	8" wide trench, 12" deep	↓	475	.017	↓		.50	.18	.68	.96

		02315 | Excavation and Fill	CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2002 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P	
940	0650	18" deep	B-53	400	.020	L.F.		.60	.22	.82	1.14	940
	0700	24" deep		350	.023			.68	.25	.93	1.30	
	0750	36" deep		300	.027			.79	.29	1.08	1.52	
	0830	Fly wheel trencher, 18" wide trench, 6' deep, light soil	B-54A	1,992	.005	C.Y.		.14	.25	.39	.49	
	0840	Medium soil		1,594	.006			.18	.31	.49	.61	
	0850	Heavy soil		1,295	.007			.22	.38	.60	.75	
	0860	24" wide trench, 9' deep, light soil	B-54B	4,981	.002			.06	.15	.21	.26	
	0870	Medium soil		4,000	.002			.08	.19	.27	.32	
	0880	Heavy soil		3,237	.003			.09	.23	.32	.40	
	1000	Backfill by hand including compaction, add										
	1050	4" wide trench, 12" deep	A-1	800	.010	L.F.		.23	.08	.31	.45	
	1100	18" deep		530	.015			.35	.11	.46	.68	
	1150	24" deep		400	.020			.47	.15	.62	.90	
	1300	6" wide trench, 12" deep		540	.015			.35	.11	.46	.66	
	1350	18" deep		405	.020			.46	.15	.61	.88	
	1400	24" deep		270	.030			.69	.22	.91	1.33	
	1450	36" deep		180	.044			1.04	.34	1.38	1.99	
	1600	8" wide trench, 12" deep		400	.020			.47	.15	.62	.90	
	1650	18" deep		265	.030			.71	.23	.94	1.35	
	1700	24" deep		200	.040			.94	.30	1.24	1.79	
	1750	36" deep		135	.059			1.39	.45	1.84	2.65	
	2000	Chain trencher, 40 H.P. operator riding										
	2050	6" wide trench and backfill, 12" deep	B-54	1,200	.007	L.F.		.20	.16	.36	.48	
	2100	18" deep		1,000	.008			.24	.19	.43	.57	
	2150	24" deep		975	.008			.24	.20	.44	.59	
	2200	36" deep		900	.009			.26	.21	.47	.64	
	2250	48" deep		750	.011			.32	.26	.58	.76	
	2300	60" deep		650	.012			.37	.30	.67	.88	
	2400	8" wide trench and backfill, 12" deep		1,000	.008			.24	.19	.43	.57	
	2450	18" deep		950	.008			.25	.20	.45	.60	
	2500	24" deep		900	.009			.26	.21	.47	.64	
	2550	36" deep		800	.010			.30	.24	.54	.72	
	2600	48" deep		650	.012			.37	.30	.67	.88	
	2700	12" wide trench and backfill, 12" deep		975	.008			.24	.20	.44	.59	
	2750	18" deep		860	.009			.28	.22	.50	.67	
	2800	24" deep		800	.010			.30	.24	.54	.72	
	2850	36" deep		725	.011			.33	.27	.60	.79	
	3000	16" wide trench and backfill, 12" deep		835	.010			.29	.23	.52	.68	
	3050	18" deep		750	.011			.32	.26	.58	.76	
	3100	24" deep		700	.011			.34	.28	.62	.81	
	3200	Compaction with vibratory plate, add								50%	50%	
	5100	Hand excavate and trim for pipe bells after trench excavation										
	5200	8" pipe	1 Clab	155	.052	L.F.		1.21		1.21	1.88	
	5300	18" pipe	"	130	.062	"		1.44		1.44	2.25	
	9100	For clay or till, add up to								150%	150%	
945	0010	EXCAVATING, UTILITY TRENCH, PLOW										945
	0100	Single cable, plowed into fine material	B-11Q	3,800	.003	L.F.		.09	.12	.21	.27	
	0200	Two cable		3,200	.004			.11	.15	.26	.32	
	0300	Single cable, plowed into course material		2,000	.006			.17	.23	.40	.52	
		02320 | Hauling										
200	0011	HAULING Excavated or borrow material, loose cubic yards R02315-400										200
	0015	no loading included, highway haulers										
	0020	6 C.Y. dump truck, 1/4 mile round trip, 5.0 loads/hr.	B-34A	195	.041	C.Y.		1.03	1.81	2.84	3.55	
	0030	1/2 mile round trip, 4.1 loads/hr.		160	.050			1.25	2.21	3.46	4.34	

Exhibit 2

NS Recon Exhibit 2

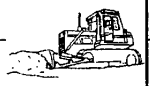
Heavy Construction Cost Data

16th Annual Edition

2002

02315 | Excavation and Fill

				CREW	DAILY OUTPUT	LABOR-HOURS	UNIT	2002 BARE COSTS MAT.	LABOR	EQUIP.	TOTAL	TOTAL INCL O&P	
400	1050	1-1/2 C.Y. cap. = 65 C.Y./hr.	R02315 -400	B-12P	520	.031	C.Y.		.91	1.61	2.52	3.14	400
	1100	3 C.Y. cap. = 112 C.Y./hr.		B-12V	900	.018			.52	1.30	1.82	2.22	
	1200	Front end loader, track mtd., 1-1/2 C.Y. cap. = 70 C.Y./hr.	R02315 -450	B-10N	560	.021			.61	.47	1.08	1.45	
	1250	2-1/2 C.Y. cap. = 95 C.Y./hr.		B-10O	760	.016			.45	.66	1.11	1.41	
	1300	3 C.Y. cap. = 130 C.Y./hr.		B-10P	1,040	.012			.33	.66	.99	1.23	
	1350	5 C.Y. cap. = 160 C.Y./hr.		B-10Q	1,280	.009			.27	.76	1.03	1.25	
	1500	Wheel mounted, 3/4 C.Y. cap. = 45 C.Y./hr.		B-10R	360	.033			.95	.60	1.55	2.10	
	1550	1-1/2 C.Y. cap. = 80 C.Y./hr.		B-10S	640	.019			.54	.43	.97	1.30	
	1600	2-1/4 C.Y. cap. = 100 C.Y./hr.		B-10T	800	.015			.43	.46	.89	1.16	
	1601	3 C.Y. cap. = 140 C.Y./hr.		"	1,120	.011			.31	.33	.64	.83	
	1650	5 C.Y. cap. = 185 C.Y./hr.		B-10U	1,480	.008			.23	.53	.76	.93	
	1800	Hydraulic excavator, truck mtd, 1/2 C.Y. = 30 C.Y./hr.		B-12J	240	.067			1.97	3.07	5.04	6.35	
	1850	48 inch bucket, 1 C.Y. = 45 C.Y./hr.		B-12K	360	.044			1.31	2.41	3.72	4.63	
	3700	Shovel, 1/2 C.Y. capacity = 55 C.Y./hr.		B-12L	440	.036			1.07	.80	1.87	2.50	
	3750	3/4 C.Y. capacity = 85 C.Y./hr.		B-12M	680	.024			.69	.80	1.49	1.93	
	3800	1 C.Y. capacity = 120 C.Y./hr.		B-12N	960	.017			.49	.72	1.21	1.53	
	3850	1-1/2 C.Y. capacity = 160 C.Y./hr.		B-12O	1,280	.013			.37	.72	1.09	1.35	
	3900	3 C.Y. cap. = 250 C.Y./hr.		B-12T	2,000	.008			.24	.65	.89	1.07	
	4000	For soft soil or sand, deduct									15%	15%	
	4100	For heavy soil or stiff clay, add									60%	60%	
	4200	For wet excavation with clamshell or dragline, add									100%	100%	
	4250	All other equipment, add									50%	50%	
	4400	Clamshell in sheeting or cofferdam, minimum		B-12H	160	.100			2.95	4.39	7.34	9.30	
	4450	Maximum		"	60	.267			7.85	11.70	19.55	25	
	8000	For hauling excavated material, see div. 02320-200											
410	0010	**EXCAVATING, BULK, DOZER** Open site	R02315 -400										410
	2000	75 H.P., 50' haul, sand & gravel		B-10L	460	.026	C.Y.		.75	.63	1.38	1.84	
	2020	Common earth			400	.030			.86	.73	1.59	2.11	
	2040	Clay			250	.048			1.37	1.17	2.54	3.37	
	2200	150' haul, sand & gravel			230	.052			1.49	1.27	2.76	3.66	
	2220	Common earth			200	.060			1.72	1.46	3.18	4.22	
	2240	Clay			125	.096			2.75	2.33	5.08	6.75	
	2400	300' haul, sand & gravel			120	.100			2.86	2.43	5.29	7.05	
	2420	Common earth			100	.120			3.43	2.91	6.34	8.45	
	2440	Clay			65	.185			5.30	4.48	9.78	13	
	3000	105 H.P., 50' haul, sand & gravel		B-10W	700	.017			.49	.62	1.11	1.43	
	3020	Common earth			610	.020			.56	.71	1.27	1.64	
	3040	Clay			385	.031			.89	1.12	2.01	2.60	
	3200	150' haul, sand & gravel			310	.039			1.11	1.40	2.51	3.23	
	3220	Common earth			270	.044			1.27	1.60	2.87	3.70	
	3240	Clay			170	.071			2.02	2.54	4.56	5.90	
	3300	300' haul, sand & gravel			140	.086			2.45	3.09	5.54	7.15	
	3320	Common earth			120	.100			2.86	3.61	6.47	8.35	
	3340	Clay			100	.120			3.43	4.33	7.76	10	
	4000	200 H.P., 50' haul, sand & gravel		B-10B	1,400	.009			.25	.59	.84	1.02	
	4020	Common earth			1,230	.010			.28	.67	.95	1.17	
	4040	Clay			770	.016			.45	1.07	1.52	1.86	
	4200	150' haul, sand & gravel			595	.020			.58	1.38	1.96	2.40	
	4220	Common earth			516	.023			.67	1.60	2.27	2.77	
	4240	Clay			325	.037			1.06	2.53	3.59	4.40	
	4400	300' haul, sand & gravel			310	.039			1.11	2.66	3.77	4.61	
	4420	Common earth			270	.044			1.27	3.05	4.32	5.30	
	4440	Clay			170	.071			2.02	4.84	6.86	8.45	
	5000	300 H.P., 50' haul, sand & gravel		B-10M	1,900	.006			.18	.54	.72	.88	
	5020	Common earth			1,650	.007			.21	.63	.84	1.01	



See CPL 04324

Crews

Crew No.	Bare Costs		Incl. Subs O & P		Cost Per Labor-Hour	
Crew B-12J	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Gradall, 3 Ton, .5 C.Y.		736.40		810.05	46.03	50.63
16 L.H., Daily Totals		$1208.40		$1523.25	$75.53	$95.21
Crew B-12K	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Gradall, 3 Ton, 1 C.Y.		868.60		955.45	54.29	59.72
16 L.H., Daily Totals		$1340.60		$1668.65	$83.79	$104.30
Crew B-12L	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Power Shovel, .5 C.Y.		311.75		342.95		
1 F.E. Attachment, .5 C.Y.		38.80		42.70	21.91	24.10
16 L.H., Daily Totals		$822.55		$1098.85	$51.41	$68.68
Crew B-12M	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Power Shovel, .75 C.Y.		502.10		552.30		
1 F.E. Attachment, .75 C.Y.		43.80		48.20	34.12	37.53
16 L.H., Daily Totals		$1017.90		$1313.70	$63.62	$82.11
Crew B-12N	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Power Shovel, 1 C.Y.		640.80		704.90		
1 F.E. Attachment, 1 C.Y.		50.20		55.20	43.19	47.51
16 L.H., Daily Totals		$1163.00		$1473.30	$72.69	$92.09
Crew B-12O	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Power Shovel, 1.5 C.Y.		809.20		890.10		
1 F.E. Attachment, 1.5 C.Y.		110.00		121.00	57.45	63.20
16 L.H., Daily Totals		$1391.20		$1724.30	$86.95	$107.78
Crew B-12P	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Crawler Crane, 40 Ton		809.20		890.10		
1 Dragline Bucket, 1.5 C.Y.		29.60		32.55	52.43	57.67
16 L.H., Daily Totals		$1310.80		$1635.85	$81.93	$102.25
Crew B-12Q	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Hyd. Excavator, 5/8 C.Y.		393.20		432.50	24.58	27.03
16 L.H., Daily Totals		$865.20		$1145.70	$54.08	$71.61
Crew B-12R	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Hyd. Excavator, 1.5 C.Y.		705.00		775.50	44.06	48.47
16 L.H., Daily Totals		$1177.00		$1488.70	$73.56	$93.05

Crew No.	Bare Costs		Incl. Subs O & P		Cost Per Labor-Hour	
Crew B-12S	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Hyd. Excavator, 2.5 C.Y.		1700.00		1870.00	106.25	116.88
16 L.H., Daily Totals		$2172.00		$2583.20	$135.75	$161.46
Crew B-12T	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Crawler Crane, 75 Ton		1103.00		1213.30		
1 F.E. Attachment, 3 C.Y.		193.20		212.50	81.01	89.11
16 L.H., Daily Totals		$1768.20		$2139.00	$110.51	$133.69
Crew B-12V	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Equip. Oper. (crane)	$32.35	$258.80	$48.90	$391.20	$29.50	$44.58
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Crawler Crane, 75 Ton		1103.00		1213.30		
1 Dragline Bucket, 3 C.Y.		64.80		71.30	72.99	80.29
16 L.H., Daily Totals		$1639.80		$1997.80	$102.49	$124.87
Crew B-13	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$25.45	$203.60	$39.60	$316.80	$25.46	$39.25
4 Laborers	23.45	750.40	36.50	1168.00		
1 Equip. Oper. (crane)	32.35	258.80	48.90	391.20		
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Hyd. Crane, 25 Ton		724.80		797.30	12.94	14.24
56 L.H., Daily Totals		$2150.80		$2995.30	$38.40	$53.49
Crew B-13A	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Foreman	$25.45	$203.60	$39.60	$316.80	$26.39	$40.44
2 Laborers	23.45	375.20	36.50	584.00		
2 Equipment Operator	31.20	499.20	47.15	754.40		
2 Truck Drivers (heavy)	25.00	400.00	38.10	609.60		
1 Crane, 75 Ton		1103.00		1213.30		
1 F.E. Ldr, 3.75 C.Y.		971.20		1068.30		
2 Dump Trucks, 12 Ton		706.40		777.05	49.65	54.62
56 L.H., Daily Totals		$4258.60		$5323.45	$76.04	$95.06
Crew B-13B	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$25.45	$203.60	$39.60	$316.80	$25.46	$39.25
4 Laborers	23.45	750.40	36.50	1168.00		
1 Equip. Oper. (crane)	32.35	258.80	48.90	391.20		
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Hyd. Crane, 55 Ton		972.40		1069.65	17.36	19.10
56 L.H., Daily Totals		$2398.40		$3267.65	$42.82	$58.35
Crew B-13C	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$25.45	$203.60	$39.60	$316.80	$25.46	$39.25
4 Laborers	23.45	750.40	36.50	1168.00		
1 Equip. Oper. (crane)	32.35	258.80	48.90	391.20		
1 Equip. Oper. Oiler	26.65	213.20	40.25	322.00		
1 Crawler Crane, 100 Ton		1383.00		1521.30	24.70	27.17
56 L.H., Daily Totals		$2809.00		$3719.30	$50.16	$66.42
Crew B-14	**Hr.**	**Daily**	**Hr.**	**Daily**	**Bare Costs**	**Incl. O&P**
1 Labor Foreman (outside)	$25.45	$203.60	$39.60	$316.80	$24.84	$38.44
4 Laborers	23.45	750.40	36.50	1168.00		
1 Equip. Oper. (light)	29.80	238.40	45.05	360.40		
1 Backhoe Loader, 48 H.P.		178.60		196.45	3.72	4.09
48 L.H., Daily Totals		$1371.00		$2041.65	$28.56	$42.53

01590 | Equipment Rental

				UNIT	HOURLY OPER. COST	RENT PER DAY	RENT PER WEEK	RENT PER MONTH	CREW EQUIPMENT COST/DAY	
600	0900	Crawler mounted, lattice boom, 1-1/2 C.Y., 40 tons at 12' radius	R01590 -100	Ea.	31.15	935	2,800	8,400	809.20	600
	1000	2 C.Y., 50 tons at 12' radius			41.90	1,150	3,460	10,400	1,027	
	1100	3 C.Y., 75 tons at 12' radius			45.10	1,225	3,710	11,100	1,103	
	1200	100 ton capacity, standard boom			54.40	1,575	4,740	14,200	1,383	
	1300	165 ton capacity, standard boom			79.70	2,700	8,115	24,300	2,261	
	1400	200 ton capacity, 150' boom			81.45	2,800	8,400	25,200	2,332	
	1500	450' boom			119.60	3,825	11,440	34,300	3,245	
	1600	Truck mounted, lattice boom, 6 x 4, 20 tons at 10' radius			19.32	725	2,170	6,500	588.55	
	1700	25 tons at 10' radius			24.63	965	2,890	8,675	775.05	
	1800	8 x 4, 30 tons at 10' radius			29.10	760	2,280	6,850	688.80	
	1900	40 tons at 12' radius			34.95	945	2,840	8,525	847.60	
	2000	8 x 4, 60 tons at 15' radius			39.56	1,175	3,540	10,600	1,024	
	2050	82 tons at 15' radius			42.83	1,650	4,940	14,800	1,331	
	2100	90 tons at 15' radius			46.38	1,750	5,250	15,800	1,421	
	2200	115 tons at 15' radius			51.75	1,875	5,590	16,800	1,532	
	2300	150 tons at 18' radius			56.90	2,050	6,175	18,500	1,690	
	2350	165 tons at 18' radius			64.15	2,400	7,225	21,700	1,958	
	2400	Truck mounted, hydraulic, 12 ton capacity			31.70	590	1,770	5,300	607.60	
	2500	25 ton capacity			33.10	765	2,300	6,900	724.80	
	2550	33 ton capacity			35.80	950	2,855	8,575	857.40	
	2600	55 ton capacity			41.55	1,075	3,200	9,600	972.40	
	2700	80 ton capacity			55.70	1,525	4,550	13,700	1,356	
	2720	100 ton capacity			68.15	2,125	6,410	19,200	1,827	
	2740	120 ton capacity			72.05	2,300	6,870	20,600	1,950	
	2760	150 ton capacity			76.35	2,625	7,890	23,700	2,189	
	2800	Self-propelled, 4 x 4, with telescoping boom, 5 ton			13.55	345	1,035	3,100	315.40	
	2900	12-1/2 ton capacity			20.15	520	1,560	4,675	473.20	
	3050	20 ton capacity			22.80	645	1,930	5,800	568.40	
	3100	25 ton capacity			24.80	720	2,155	6,475	629.40	
	3150	40 ton capacity			44.10	1,050	3,140	9,425	980.80	
	3200	Derricks, guy, 20 ton capacity, 60' boom, 75' mast			12.07	315	938	2,825	284.15	
	3300	100' boom, 115' mast			19.59	540	1,620	4,850	480.70	
	3400	Stiffleg, 20 ton capacity, 70' boom, 37' mast			13.97	405	1,210	3,625	353.75	
	3500	100' boom, 47' mast			21.97	655	1,960	5,875	567.75	
	3550	Helicopter, small, lift to 1250 lbs. maximum, w/pilot			64.13	2,525	7,590	22,800	2,031	
	3600	Hoists, chain type, overhead, manual, 3/4 ton			.05	5.35	16	48	3.60	
	3900	10 ton			.25	24.50	73	219	16.60	
	4000	Hoist and tower, 5000 lb. cap., portable electric, 40' high			4.03	180	541	1,625	140.45	
	4100	For each added 10' section, add			.08	14	42	126	9.05	
	4200	Hoist and single tubular tower, 5000 lb. electric, 100' high			5.43	252	755	2,275	194.45	
	4300	For each added 6'-6" section, add			.14	24	72	216	15.50	
	4400	Hoist and double tubular tower, 5000 lb., 100' high			5.81	277	831	2,500	212.70	
	4500	For each added 6'-6" section, add			.16	26.50	79	237	17.10	
	4550	Hoist and tower, mast type, 6000 lb., 100' high			6.29	287	862	2,575	222.70	
	4570	For each added 10' section, add			.10	17.35	52	156	11.20	
	4600	Hoist and tower, personnel, electric, 2000 lb., 100' @ 125 FPM			12.77	765	2,290	6,875	560.15	
	4700	3000 lb., 100' @ 200 FPM			14.65	865	2,600	7,800	637.20	
	4800	3000 lb., 150' @ 300 FPM			16.20	970	2,910	8,725	711.60	
	4900	4000 lb., 100' @ 300 FPM			16.83	990	2,970	8,900	728.65	
	5000	6000 lb., 100' @ 275 FPM			18.24	1,050	3,120	9,350	769.90	
	5100	For added heights up to 500', add		L.F.	.01	1.67	5	15	1.10	
	5200	Jacks, hydraulic, 20 ton		Ea.	.05	12.35	37	111	7.80	
	5500	100 ton			.15	35	105	315	22.20	
	6000	Jacks, hydraulic, climbing with 50' jackrods								
	6010	and control consoles, minimum 3 mo. rental								
	6100	30 ton capacity		Ea.	1.56	104	311	935	74.70	
	6150	For each added 10' jackrod section, add			.05	3.33	10	30	2.40	
	6300	50 ton capacity			2.50	167	500	1,500	120	

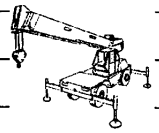


Exhibit 3

NS' Reconsideration Petition Discounted Cash Flow Summary Table

Year	Capital Costs & Taxes	Annual Operating Costs	Total Annual Costs	Annual revenues	Annual Over/(Under) Payment (Current)	Annual Over/(Under) Payment (Present Value)	Cumulative Over/(Under) Payment (Present Value)
2002	$195.5	$157.7	$353.2	$320.5	($32.7)	($31.9)	($31.9)
2003	267.7	194.1	461.8	415.5	(46.4)	(40.9)	(72.8)
2004	276.1	196.6	472.7	421.9	(50.8)	(40.6)	(113.4)
2005	284.9	201.8	486.6	442.2	(44.4)	(32.1)	(145.5)
2006	294.1	209.8	503.8	458.1	(45.7)	(29.9)	(175.4)
2007	303.2	218.6	521.8	477.6	(44.2)	(26.1)	(201.5)
2008	312.3	225.0	537.3	488.5	(48.9)	(26.2)	(227.7)
2009	321.7	229.1	550.8	492.8	(58.0)	(28.1)	(255.7)
2010	331.7	233.5	565.2	494.7	(70.5)	(30.9)	(286.6)
2011	342.4	238.2	580.6	499.3	(81.3)	(32.2)	(318.9)
2012	353.4	241.9	595.2	500.6	(94.6)	(34.0)	(352.8)
2013	364.7	250.1	614.9	514.3	(100.6)	(32.7)	(385.5)
2014	376.5	257.8	634.3	525.1	(109.2)	(32.1)	(417.6)
2015	388.6	267.3	655.9	540.9	(115.0)	(30.6)	(448.2)
2016	401.1	273.0	674.1	546.1	(128.0)	(30.8)	(479.0)
2017	414.1	281.1	695.2	558.1	(137.1)	(29.9)	(508.9)
2018	427.5	288.7	716.2	566.3	(149.9)	(29.5)	(538.4)
2019	441.4	298.2	739.6	580.9	(158.6)	(28.3)	(566.7)
2020	455.7	307.3	763.1	590.8	(172.3)	(27.8)	(594.5)
2021	470.6	315.5	786.1	599.1	(187.0)	(27.3)	(621.8)
2022	120.0	80.0	200.0	152.3	(47.7)	(6.8)	(628.6)

NS Recon Exhibit 3